**Teacher Name: Ms. Fouzia Saleem Class: 7 Subject: Science Date: 30th November’18**

**Comprehensive work sheet**

**Topic: From cells to organisms**

**Q1: Circle the correct option:**

**i) Which of the following three parts are present in both, plant and animal cell?**

 **a) Cell wall, cell membrane, nucleus**

 **b) Cell membrane, nucleus, cytoplasm**

 **c) Cell membrane, nucleus, chloroplast**

 **d) Cell wall, vacuole, chloroplast**

**ii) Which of these shows the correct order, from smallest to biggest?**

 **a) Organ system, tissue, organ, cell**

 **b) Cell, organ, tissue, organ system**

 **c) Cell, tissue, organ, organ system**

 **d) Cell, tissue, organ system, organ**

**iii) \_\_\_\_\_\_\_\_\_\_ form the outermost layer of the plant and protect it from injuries and**

**Drying out.**

 **a) Vascular tissues c) Ground tissues**

 **b) Epithelial tissues d) Dermal tissues**

**iv) \_\_\_\_\_\_\_\_ supports the body, gives it a shape and protects organs such as the heart**

**and the lungs.**

 **a) Respiratory system c) Skeletal system**

 **b) Blood circulatory system d) Muscular system**

**v) \_\_\_\_\_\_\_\_\_\_\_\_is partially permeable and allows only certain materials to pass through.**

 **a) Cell membrane c) Cytoplasm**

 **b) Cell wall d) Vacuole**

**Q2: The table below shows a series of statements about cells. Tick the boxes to show whether the statement is true or false.**

|  |  |  |
| --- | --- | --- |
| Statement | True | False |
| All living organisms consists of cells. |  |  |
| A cell wall is present in an animal cell. |  |  |
| Both animal and plant cells have a cell membrane. |  |  |
| Chloroplast are found in the animal cells. |  |  |
| Gene is a part of chromosomes found only in animal cells |  |  |
| Plant cells contain a single large vacuole |  |  |

Q3: Give reasons for the following statements:

1. Plant cells have a regular shape.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Nerve cells (Neurons) have many branched endings and a long fiber.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Sperm cells have a long tail.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Guard cells occur in pairs and are mostly found on the underside of the leave.

Q4: The diagrams given below. Show two types of plant cells A and B.

|  |
| --- |
| http://s2.thingpic.com/images/CY/K9FippbesZJVucCrrnKJMBD7.jpeg |

 a) Identify these cells.

|  |
| --- |
| https://lfsadem.files.wordpress.com/2012/03/palisade-cell-2-ol-0011.jpg?w=876 |

Cell A: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Cell B: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) Which of these cells is found in the:

 i) Leaf: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 ii) Root: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) Which special features (structures) do they have in order to perform their specialized functions?

 i) Cell A: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 ii) Cell B: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q5a: Why is human heart made up of muscle tissues?

Ans: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Ans: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Q6: Identify the systems and write their functions.

|  |  |  |
| --- | --- | --- |
|  |  Name of System | Main function of the system |
| http://www.alleganynutrition.com/images/research2.jpghttps://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcT5wg6penCSTWxWlJG7ij7T8S6XdOwNnQVuAH5jyLj_u8lo-AuShttp://i.livescience.com/images/i/000/030/270/iFF/shutterstock_90859748.jpg?1345672360 |  |  |